Sex, Gender and Health

Edited by

TESSA M. POLLARD
University of Durham, UK
and
SUSAN BRIN HYATT
Temple University, Philadelphia

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Sex, gender and health: integrating biological and social perspectives

TESSA M. POLLARD AND SUSAN BRIN HYATT

From male and female to men and women

The primary aim of this volume is to show how both biological and social anthropologists have sought to explain the reasons that underlie well-documented differences in the health experiences of men and women. By improving our understanding of the origins of the differences in health experiences between men and women, we hope to achieve greater insight into the processes generating ill-health for everyone. We can also begin to address imbalances in the diagnosis of disease and subsequent treatments which have generally favoured men but which have occasionally advantaged women.

A second aim is to help bring social and biological anthropologists together. Too often they fail to communicate with one another. In particular, we wish to illustrate the extent to which the field of health research is one which benefits immensely from improved co-operation between social and biological scientists. The first step in such a process must be for each sub-discipline to look beyond its own paradigm to acknowledge the value of others. We hope that we have furthered these goals by inviting a diverse group of contributors to examine a selection of important issues regarding the health of men and women. With its emphasis on holism and on examining human cultures from a wide range of analytical perspectives, anthropology is one of the few fields which can claim to address these issues from both biological and social perspectives under a single disciplinary rubric.

Throughout this volume, beginning with its title, we highlight the

distinction between 'sex' and 'gender' because these terms refer to two different aspects of the human experience. By 'sex', we mean the specific genetic and hormonal make-up of individuals and their subsequent development of secondary physical characteristics which place individuals in the category 'female' (XX chromosomes) or 'male' (XY chromosomes). At the same time, we also acknowledge that even within the biological category 'sex', there is tremendous variation and there are individuals who, for a variety of reasons, including atypical chromosomal patterns (e.g. XXY), transexualism and intersexuality (hermaphradism), do not fit neatly into either category. With the term 'gender', we refer to a much broader range of variation in how people in societies all over the world understand the social and cultural roles, values and behaviours of men and boys, girls and women. Many social anthropologists use the term 'social construction' to refer to the idea that all aspects of human society and relationships, such as gender, are not 'givens' but are always interpreted through the lens of culture and therefore vary greatly between different times and places.

Most people are born either male or female; men and women, however, are formed as social beings through life-long processes of enculturation. In this book, we are seeking to understand and explain how, in the life course of creating boys and men, girls and women out of males and females, biology and culture interact to produce differences between the sexes in terms of their health experiences and their rates of morbidity and mortality. It is precisely because this interaction between biology and culture is so multifaceted and complex that drawing an absolute distinction between 'sex' and 'gender' in practice is often difficult, if not impossible.

In the majority of countries women now have a longer life expectancy than do men (Figure 1.1), but the difference is particularly marked in affluent countries. Historically this disparity emerged in Europe and North America during the latter part of the nineteenth century and continued to widen during the twentieth century. Now men outlive women only in parts of South Asia.

More detailed examination of the patterns underlying these findings show that boys generally have higher neonatal and infant mortality rates than girls. However, figures from England and

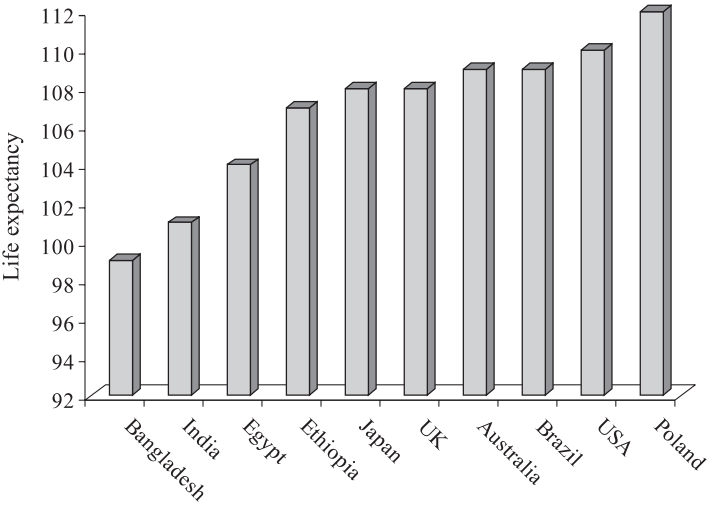
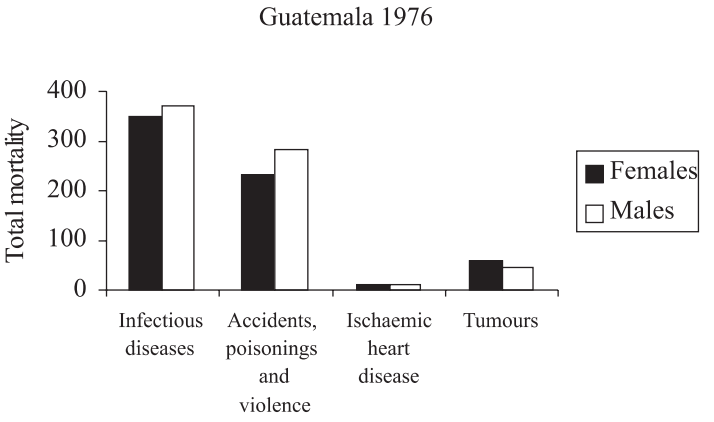
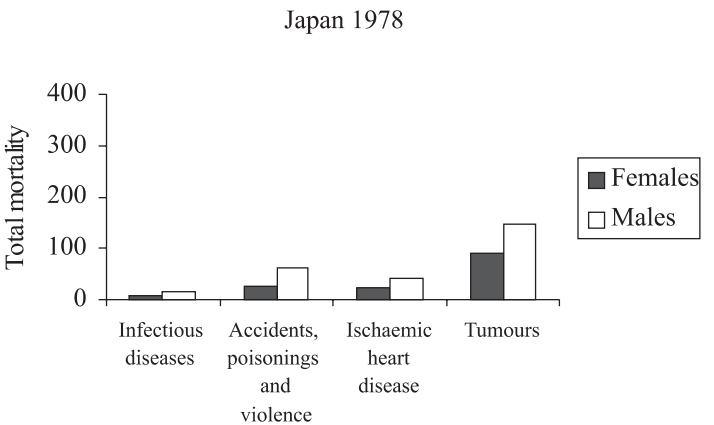


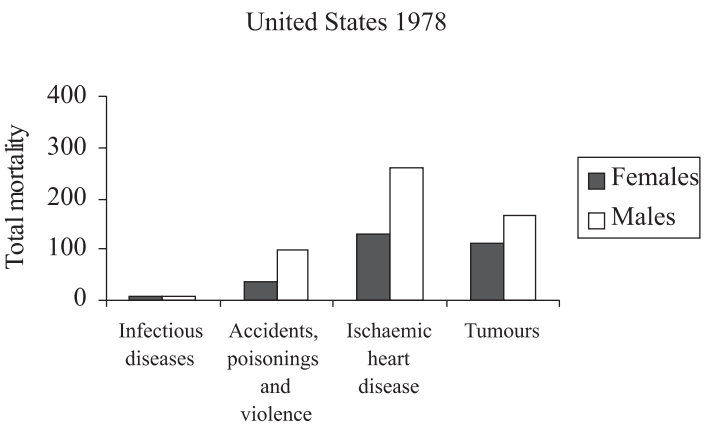
Figure 1.1. Life expectancy of females as a percentage of males in 1990. A figure above 100 indicates that the female average is higher than the male. Data from the United Nations Development Programme (1992).

Wales show that men's mortality disadvantage peaks first in early adulthood and again in men in their sixties (Hart 1989). The first peak results from the greater number of violent and accidental deaths suffered by young men (Figure 1.2). The second is a consequence of the higher mortality of men from the diseases that are responsible for the majority of deaths across industrialised populations – cardiovascular disease and cancers (Figure 1.2). Other European countries show less marked age patterns, but the same general explanations hold. In France, where cardiovascular disease is less predominant than in northern Europe, men show higher mortality than women from cirrhosis of the liver, a disease which is more prevalent than in northern Europe (Hart 1989).

The smaller mortality advantage of women in poorer countries can partly be attributed to deaths associated with childbearing. Around 500 000 women die every year as a result of complications during pregnancy or delivery and many more die from related complications (Holloway 1994). Unsafe abortions also account for a high proportion of these deaths, and in African countries such as


Guatemala 1976
Total mortality
400
300
200
100
0
Females
Males
Infectious diseases
Accidents, poisonings and violence
Ischaemic heart disease
Tumours


Japan 1978
Total mortality
400
300
200
100
0
Females
Males
Infectious diseases
Accidents, poisonings and violence
Ischaemic heart disease
Tumours


United States 1978
Total mortality
400
300
200
100
0
Females
Males
Infectious diseases
Accidents, poisonings and violence
Ischaemic heart disease
Tumours

Somalia, female circumcision (also known as 'female genital mutilation') contributes to problems during pregnancy and childbirth (Aden *et al.* 1997). Part of the greater improvement in life expectancy generally experienced by women with increasing economic development is certainly attributable to an improvement in maternal mortality rates.

There are many other aspects of women's health and well-being which suffer in poorer countries, but gender differentials in mortality from infectious diseases are not marked in most places. In South Asia, where women have a shorter life expectancy than men, it is generally true that women have a particularly low status (see Rousham, Chapter 3). There is considerable evidence that in these countries boys are favoured over girls even more markedly than in many other cultures. Selective abortion of female foetuses is commonly practised in India and there is evidence that boys are better nourished than girls and that girls are more likely to die as a result of undernutrition and increased susceptibility to infection. It is also true that girls are often less likely to receive medical attention than boys where resources are scarce. In pre-industrial Europe girls also suffered higher mortality than boys, for similar reasons.

In industrialised countries men tend to suffer from more life-threatening illnesses than women, as would be expected given their higher rates of mortality and comparatively shorter life expectancy. However, it is also well-established that women report greater morbidity and appear to suffer more often from physical and mental illnesses, although Macintyre *et al.* (1996) caution against over-generalisations in this regard. In the United States, for example, women experience a higher incidence of acute illnesses and are more likely to have arthritis, chronic sinusitis and digestive problems (Fuller *et al.* 1993). This trend extends to non-western countries such as Thailand (Fuller *et al.* 1993), but less evidence is available for the poorer countries. These findings have sometimes been

Figure 1.2. Total mortality from selected causes for males and females, showing death rates per 100 000 population per year, age-standardised so that comparisons are not affected by differences in age distribution. Data taken from Waldron (1983).

attributed, although usually only partly, to a greater willingness by women to report symptoms, a suggestion that raises important questions of its own.

Seeking explanations

Both biological and social anthropologists have attempted to explain the differences in health outcomes of men and women. Biological anthropologists try to understand biological variation between and within human populations. They undertake their research within the scientific paradigm and often apply an evolutionary understanding to interpret current biological variation.

Waldron (1983) has explored the extent to which genetic differences in the make-up of men and women can explain some of the sex differences in mortality noted above. For example, it is possible that carrying only one X chromosome is a disadvantage to males. The sex hormones may also affect the biological propensity to develop certain diseases. For example, oestrogen is thought to protect against cardiovascular disease and to affect immune functioning. Women show a stronger antibody response to viral illnesses and parasitic infections, but they are also more vulnerable to autoimmune diseases such as rheumatoid arthritis, particularly prior to the onset of menopause (Holden 1987). High levels of testosterone in men have been linked to a greater risk of prostate cancer (Gann *et al.* 1996) and, via the effects of testosterone on serum lipids, of cardiovascular disease.

Biological anthropologists aim to examine how the biology of such processes is affected by variation in the socio-cultural environments of populations and individuals within populations. Their work also extends to the behavioural arena, applying evolutionary theory to understand human behaviour. It is always necessary, then, for biological anthropologists to consider gender, since they aim to understand human biology within the context of human culture. Walker and Cook (1998) have recently drawn attention to this issue, noting that some biological (physical) anthropologists have failed to distinguish between sex and gender in their writing, con-

fusing biological and cultural categories, leading to conceptual confusion and problems in communicating with colleagues in other disciplines. They call on biological anthropologists to use these terms carefully as an important tool in the study of human biology in its cultural context.

Social anthropologists have focused on explanations for variation in health outcomes based on the different gender roles played by boys and girls, men and women in a variety of cultural contexts. As Lorber (1997:2) writes, gender 'creates different risks and protections for physical illnesses, produces different behavior when ill, elicits different responses in health care personnel, affects the social worth of patients, and influences priorities of treatment, research, and financing'. Thus the different roles of men and women may create different health risks. For example, Hart (1989) has suggested that the increasing gap between the survival prospects of men and women seen over the last one hundred years in Europe can be traced to the greater access of the male breadwinner to the economic resources of the household, which allow him to spend disposable income on such luxuries as alcohol and cigarettes. Thus, although men may have had more resources at their disposal, it is partly because of that very fact that they have suffered disproportionately from diseases such as lung cancer and cirrhosis of the liver, which in some cases have been linked to 'lifestyle' issues like smoking and high rates of alcohol consumption. Social processes also contribute to the definition of illness. Thus it has been argued that women have been subjected to greater medicalisation than have men because medical science has based its norms on the exemplary body of the man as the standard against which all others are measured (Urla and Terry 1995, Davis 1996, Lorber 1997). What are normal biological functions for the female (menstruation, menopause, lactation and childbirth, for example) have been treated as essentially medical problems and even as disease-states, even when they proceed without undue complications, rather than being regarded simply as natural functions (see Martin 1987:27–67).

In this volume, we hope to demonstrate that social perspectives and biological science need not find themselves in irreconcilable and antithetical opposition to one another but can, in fact, be used

together productively to illustrate the ways in which both contribute to our understanding of the world around us. And, nowhere is it more apparent that each of these perspectives is necessary and useful, we would argue, than in the case of sex and gender. At the most basic level, we believe that it is important for anyone seeking to understand health issues, whether from a biological or a social point of view, to be aware of the insights made possible by both of these approaches. It is for this purpose that we have brought together biological anthropologists who incorporate an understanding of gender into their hypotheses regarding the biological mechanisms that lead to ill-health, as well as social anthropologists who focus on understanding how the interaction between gender and biological factors has affected men and women's physical and mental health outcomes in different societies. The possibilities for dialogue between the two approaches are not always immediately evident, but we argue that awareness is a good first step.

The distinction between 'sex' and 'gender', in fact, rests on the acceptance of the truthfulness of both biological and social perspectives. In Hill and Ball's chapter (Chapter 2) on infanticide in this volume, they demonstrate how some theories to explain the decision of parents to invest differentially in newborn boys and girls have been based on sex, whilst others emphasise the importance of the parents' anticipation of the social roles – that is, gender – to be played by the boy or girl later in life. They show that whilst evolutionary theories based on sex provide fascinating insights and appear to have some limited utility in analysing human populations, it is essential to consider the importance of gender roles when trying to understand sex biases in humans as opposed to other animals. In societies where girls are not seen as potential contributors to the household income, for example, or where impoverished families might be expected to provide large dowries for their daughters when they reach the age of marriage, female infanticide is more likely to occur than in societies where boys and girls are seen as having complementary and equally productive parts to play in sustaining the household economy.

It has been argued that parental investment tends to be biased towards sons throughout childhood in many South Asian popula-

tions because of the low status of daughters and women in South Asian societies. Some evidence for such a bias is evident in sex mortality ratios. However, it is important that we develop an understanding of the mechanisms leading to more deaths amongst girls. In Chapter 3 of this volume, Rousham notes that theories about the development of ill-health in girls have focused on greater food allocation to sons at the expense of daughters. In her research she has used anthropometric measures of nutritional status in children taken over a period of months to chart the growth of boys and girls. These measures provide an important insight into the mechanisms that lead to poor health in girls and Rousham is able to link changing economic circumstances to biological outcomes in a manner which provides tangible evidence of the impact of gender. Here, then, scientific methods are used to show how our social understanding of gender is translated directly into different biological outcomes for boys and girls.

Pollard's focus (Chapter 4) on the impact of changing lifestyles on men's and women's cardiovascular health also demonstrates that an understanding of the roles played by both gender and sex is essential for her work. There is a complex interaction between the different biological responses to modernised lifestyles, and both the lifestyle changes and biological responses differ between men and women. For example, research in this field suggests that men's and women's bodies, as biological organisms, respond differently to stressors. The ovarian hormone oestrogen, which is found in much higher levels in women in industrial societies than in more traditional cultures, plays a critical role in protecting women from cardiovascular disease, and its low levels probably play a role in explaining the increased risk of cardiovascular disease in men who have experienced stress. This is a difference at the level of sex. When it comes to people's lived experiences of stress, however, gender also comes into play. Women report more psychological disturbances in their lives as a result of stress than do men. This difference in men's and women's experiences of stress is also a consequence of gender roles; in most industrialised societies, it is women who hold the majority of lower-status jobs and who are most often expected to work outside the home whilst also maintaining

their responsibilities as full-time carers within their households. Pollard shows that we need to understand both levels in order to make comprehensive sense of the relationship between lifestyle, including stress, and health.

The remaining chapters focus on the role of gender and the social construction of illness. The rather different analyses presented illustrate the variety of ways in which health differences between men and women may find their origins in social factors. Manderson (Chapter 5), for example, focuses on conditions in developing countries and demonstrates how the lower status of women and their relegation to being valued primarily as bearers of children may translate into a variety of reproductive health problems. Moreover, in addition to her explanation of how reproductive illnesses affect women in developing countries, Manderson also shows how *cultural* attitudes toward reproduction and women's sexuality in a variety of societies may also hinder women from seeking help for reproductive disorders and diseases of the sexual organs. Because their sexuality is often carefully monitored and policed, when illness affects their reproductive organs, women in a variety of settings are often afraid to seek medical attention lest they be accused of violating either local norms of chastity, in the case of unmarried women, or marital fidelity, in the case of married women.

Manderson illustrates how embarrassment and lack of familiarity with the sexual functioning of their own bodies may also inhibit men from seeking help for venereal and other reproductive diseases which affect them. Given the rapid spread of AIDS in the developing world, it is critical that educational programmes which focus on prevention take into account the *social* understandings of sexuality and reproductive health in different cultural contexts. Even as our scientific knowledge of the biological mechanisms through which diseases like AIDS are transmitted continues to grow, Manderson's work makes it all too clear that in order to be truly successful in eradicating the spread of AIDS, and other sexually transmitted diseases, we need to pay *equal* attention to the social dimensions and local cultural understandings of sex, gender and sexuality.

In comparison to Manderson's study of women in developing nations, Hyatt illustrates how social perspectives on poor women in the colonising metropole of England also influenced medical practices. In her chapter (Chapter 6), Hyatt illustrates how social reformers in the nineteenth and twentieth centuries in Britain (and elsewhere) targeted impoverished mothers as the primary causes of negative biological outcomes in their children, such as disease, malnutrition and infant mortality and also of undesirable social consequences, such as juvenile delinquency. Rather than deal with the environmental poverty which compromised the survival of babies and children, many of the measures put into place at that time involved the strict surveillance of poor mothers' conduct. The problems of impoverished mothers became translated into issues of medicine or hygiene to be treated through such innovations as health visiting, whereby mothers were trained in the proper methods of child-rearing. To say that many of these developments led to a view of poor mothers as somehow morally and physically deficient, however, is not to simultaneously deny that many of the changes implemented through campaigns against infant mortality, such as providing clean milk and constructing decent sanitation systems, did not also actually promote much better health. Clearly, such measures did vastly improve the health and welfare of *all* the inhabitants of urban environments. The intense focus on mothers as moral beings however, had a socially constructed outcome as well. One was that 'good mothering' was seen as ultimately perhaps even more essential for fostering good health in children than was undertaking more broadly based measures intended to rectify economic inequality. This assumption remains very much in evidence in the current period, with an emphasis on 'parenting skills' having become a well-established and accepted strategy for dealing with the exigencies of poverty (see Edwards 1995).

In her analysis of one woman's experience of psychosurgery in contemporary (1970s) Britain, Hyatt draws upon the history of the maternal and infant welfare programmes of the earlier part of this century to demonstrate a certain continuity in treatments of poverty, which have addressed it primarily as a *medical problem of individuals*, rather than as a systemic problem inherent in the political economy

of industrial capitalism. As current worries over supposed drastic declines in population sizes in Europe have again arisen to bedevil policy-makers and politicians (see Spector 1998, for example), we are likely to see a revival of maternalist initiatives which conflate notions about mothering with concerns about the social and biological well-being of people and citizens at the level of populations. Moreover, as economic and material inequality continues to grow within western countries, the present potential for an increase in projects that claim to treat and to avert social disorder through biomedical interventions appears to be great.

While Hyatt shows how, in the earlier part of this century, policy-makers gave disproportionate attention to re-shaping the practices of poor mothers at the expense of addressing the causes and consequences of structural inequality, Kaufert (Chapter 7) illustrates how recent health policy initiatives have completely failed to take into account the conditions, both social and biological, that affect women's health. Even while women have been accorded an important role as the reproducers of populations, their particular health needs as individuals in their own rights have often remained invisible.

The end result is that initiatives that purport to focus on the health of 'the population' are, in fact, initiatives that address primarily those conditions affecting only one group of people: that is, middle-class *men*. In other words, despite the apparent universality and inclusivity of the term 'population', Kaufert shows how current health policy initiatives do not, in fact, take into account the needs of women, the poor, ethnic and racial minorities and others. Health policies are, therefore, shown to be driven by goals and outcomes determined by data that actually omit or obscure large sectors of the population.

Kaufert's chapter also illustrates the very important point that in looking at the relationship between health and gender, it is not enough to just 'add women and stir'. The question her chapter sets out to answer is not, 'how would health policy change if women were included'? but, rather, 'how did the notion of the population become defined through policy discourse in such a way that certain groups, such as women, got left out in the first place?' This is a critical question because it points to the ways in which apparently

straightforward and seemingly neutral concepts, such as 'the health of the population', are actually laden with underlying social and cultural biases about which groups' needs are really paramount. Those communities who are most in need of a comprehensive health policy, such as the poor, the elderly, women, and the unemployed to name but a few, end up being the ones who are actually least likely to benefit from a range of new governmental health initiatives.

Littlewood (Chapter 8) tackles a very different set of questions in his chapter. As he points out, there is voluminous research to show that women report much greater incidences of mental illness and of psychological distress than do men; moreover, women are more frequently diagnosed by medical practitioners as suffering from psychological problems and illnesses. Yet, Littlewood emphasises that there is little evidence of any organic or biological cause for these higher rates of mental illness. Rather, Littlewood suggests that women presenting with certain symptoms (such as sleeplessness, for example) are much more likely than men to be diagnosed by practitioners as suffering from mental rather than physical disorders; moreover, the pharmaceutical industry has specifically targeted women as the primary consumers of psychotropic drugs, such as tranquillisers. Littlewood points out that even in western countries, where there are generally much higher degrees of parity between men and women than in the developing world, women are still seen as more constrained by social conventions from taking action to resolve their problems than are men. Therefore, they become the 'perfect' target for medicalised interventions: that is, the passive patient.

In his chapter, Littlewood deals with a particular medical and psychological event disproportionately attributed to women in western societies: the taking of drug overdoses or 'parasuicide' – that is, a suicide attempt undertaken in such a manner, particularly through the misuse of prescription drugs, that it is unlikely to be fatal. Littlewood compares western women's experiences of parasuicide with comparable episodes of apparent psychological disturbances in non-western societies, such as 'spirit possession' and 'wild man possession'.

What links the experience of the British 'housewife' who takes an overdose of sleeping pills and who is rushed to hospital and revived to, say, that of the possessed 'wild man' of highland New Guinea is, in Littlewood's view, the fact of their similar feelings of powerlessness or social dislocation. Acts of self-injury or behaviours that set them apart from others dramatically demonstrate to sufferers' respective communities the degree to which they feel left out, beset, and 'unable to cope'. The desired result of such actions, Littlewood suggests, is not death nor permanent social exclusion but is, rather, a re-acceptance into the community. Through this innovative hypothesis, Littlewood points out that most societies have mechanisms that allow for periodic deviation from psychological 'norms' and that these so-called 'norms' of behaviour themselves vary widely throughout different societies making the diagnosis of mental illnesses particularly susceptible to cultural influences.

Diagnoses of mental illness affect other subordinated groups in western societies, in addition to women. Westwood (1992) for example, has discussed the work of the Black Mental Health Group in Leicester, England, an organisation that sought to call attention to the fact that Black people – in this case, men in particular – were disproportionately being diagnosed as suffering from mental illnesses and were consequently over-represented as patients in secure mental hospitals. Consistent with Littlewood's arguments, Westwood also illustrates that, as in the case of women, Black people's distress was also re-interpreted as psychiatric in nature, thereby allowing doctors and others to sidestep relations of power and powerlessness inherent in hierarchical social structures based on race (and gender) in Britain.

Science and culture

Much of the debate between biological science and social science actually centres around the question of programmatic and policy outcomes. Some social scientists have gone so far as to suggest that acknowledging *any* biological absolutes or commonalities among people inevitably leads to oppressive and reductionist social poli-

cies. In their excellent discussion of the current scepticism in some circles about the 'truth' of science, Ehrenreich and McIntosh (1997:15) have explained that according to that critical point of view 'Biology is rhetorically yoked to "determinism", a concept that threatens to clip our wings and lay waste to our utopian visions, while culture is viewed as a domain where power relations with other human beings are the only obstacle to freedom'.

Certainly even the most ardent social constructionist among us would be unlikely to advocate disregard for, say, the germ theory of disease transmission. The problem comes when scientific discoveries are then coupled with moral judgments about individual behaviours. That coupling of science and morality makes clear the point that biology cannot be separated from its cultural context. In the throes of the industrial revolution, for example, poor mothers were not bad mothers because of their moral failings; rather, they lacked access to new information about the causes of infant mortality and the economic resources necessary to implement measures to prevent this tragic outcome.

There is an undeniably unsavoury side to the history of scientific studies of health, in which such groups as women, ethnic minorities, homosexuals and colonised peoples were held up as biological 'deviants' in comparison to the 'ideal' physical type who was inevitably male, white, European, heterosexual, and bourgeois (see Urla and Terry 1995, Marks and Worboys 1997). Many historians and anthropologists of science, including Harraway (1989), Horn (1995) and Gould (1981) have unearthed the connections between social agendas (such as the justification of racial and gender inequalities) and scientific research. Their contributions have been critical to our understanding of how science is, in fact, itself a cultural practice, one whose assumptions, categories, hypotheses and conventions are inevitably derived from cultural understandings of the world. Like all cultural practices, science historically has also been influenced by shifting political imperatives and has been used in the service both of upholding hierarchies based on race and gender and of challenging such hierarchies.

This idea that science is subject to social pressures does not mean, however, that we intend to invalidate the many contributions of

scientific research. Nor do we intend to suggest that science and culture constantly pose challenges to one another's insights. Rather, we hope to have demonstrated that an understanding of science and culture in tandem, in this case using the notions of 'sex' as a biological concept and 'gender' as a cultural one, is essential for furthering our analyses of men's and women's experiences of health and disease.

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